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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/750,482	12/31/2003	Jeffrey J. Jonas	SVL920050503US2	9863

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EXAMINER

WILLIAMS, KENT L

ART UNIT	PAPER NUMBER
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2139

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/19/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/750,482

Applicant(s)

JONAS, JEFFREY J.

Examiner

Kent L. Williams

Art Unit

2139

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-58 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-58 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>See Continuation Sheet</u> . | 6) <input type="checkbox"/> Other: _____ |

Continuation of Attachment(s) 3. Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :6 April 2004; 27 May 2004; 11 June 2004; 4 December 2006; 19 December 2006.

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement filed 6 April 2004 fails to comply with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609 because four of the references are not pertinent to the problem of the instant application and are not within the field of endeavor. It has been placed in the application file, but some of the information referred to therein has not been considered as to the merits. Applicant is advised that the date of any re-submission of any item of information contained in this information disclosure statement or the submission of any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the statement, including all certification requirements for statements under 37 CFR 1.97(e). See MPEP § 609.05(a). Patent No. 5,991,733 has not been considered because it is drawn to insurance business methods. Patent No. 5,819,263 has not been considered because it is drawn to customer grouping business methods. "Automatically Detecting Deceptive Criminal Identities" has not been considered because it is drawn to criminal justice. "Automatically Linking Thesauri" has not been considered because it is drawn to management of multiple thesauri.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 17 and 46 recite the limitation "secondary data" in line 5. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 1-58 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. In short, there is no tangible result from the independent claims. Claims 1 and 30 recite "receiving," "processing," and "generating." However, "generating a signal," especially within a method claim, is nonstatutory, as it has been found that a signal, whether transient or not, must be embodied alongside a "means" (e.g., the functionality of the signal must be in conjunction with a manifestation such as a physical change due to said signal). The Examiner has found that including the limitations of claims 11-15 into claim 1 would render the claim as having a tangible result. Likewise, claims 25-29 into claim 17, claims 40-43 into claim 30, and claims 54-58 into claim 46, so that the "signal" produces a tangible result and covers both alternatives since the signal is the output of a Boolean decision.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-58 are rejected under 35 U.S.C. 102(b) as being anticipated by Musgrave et al. (U.S. Patent No. 6,202,151 B1), as provided by the applicant.

C1. A method for processing data comprising: receiving a first biometric data and a first personal key; processing the first biometric data and the first personal key through an irreversible cryptographic algorithm to form a first processed data; receiving a second biometric data and a second personal key; processing the second biometric data and the second personal key through the irreversible cryptographic algorithm to form a second processed data; comparing the second processed data to the first processed data; and generating a signal pertaining to the comparison of the second processed data to the first processed data. (Column 3, lines 57-60, column 2, lines 26-29 and lines 53-65, column 5, lines 15-22, and Figure 3. Please note "one-way hashing function" is, by its definition, 'irreversible.' Although Musgrave et al. teach using an "inverse **45** of the hash function **34**, (Col. 5, lines 39-41)," Musgrave et al. have alternatively taught the use of non-invertible/reversible hash/one-way function in paragraph 2 of column 5. Please see applicant's disclosure, paragraph 0008, for verification.)

C2. The method of claim 1 further comprising generating a first variant from the first biometric data prior to processing the first biometric data and the first personal key through the irreversible cryptographic algorithm. (Column 5, lines 15-19. The Examiner is interpreting concatenating the biometric with other data as to form a 'variant.')

C3. The method of claim 1 further comprising generating a second variant from the second biometric data prior to processing the second biometric data and the second personal key through the irreversible cryptographic algorithm. (Column 5, lines 15-19 and Column 3, lines 54-57.)

C4. The method of claim 1 further comprising processing the first biometric data through a secondary irreversible cryptographic algorithm prior to processing the first biometric data and the second biometric data through the irreversible cryptographic algorithm. (Column 3, lines 37-39)

C5. The method of claim 1 further comprising adding salt to the first biometric data and the first personal key. (Figure 3, block 28. Musgrave et al. present a 'addition data to pad...[other] combined data,' per paragraph 15 of the applicant's specification. The Examiner is interpreting "User Input Data" given through device 28 as 'pad data' to pad 'Combined Data' that is biometric and public key data, as presented in both the reference and instant application.)

C6. The method of claim 1 further comprising processing the first personal key through a cryptographic algorithm prior to processing the first biometric data and the first personal key through the irreversible cryptographic algorithm. (Figure 3, blocks 32 and 34. The public key is processed with other data through the cryptographic hash algorithm 34.)

C7. The method of claim 1 further comprising associating a first primary key to the first processed data. (Column 5, lines 45-60 and Column 6, lines 52-60. The Examiner is interpreting 'primary key' to be 'any personal inputted data' per paragraph 15 of the

applicant's specification (e.g., a user inputted string). Therefore, one of the datum received in Musgrave et al., per block 28 of Figure 3, is a 'primary key.'

C8. The method of claim 1 further comprising associating a second primary key to the second processed data. (Figure 3, block 36. Please note that the first set of data (primary key, personal key and biometric) in Musgrave et al. corresponds the second set of data in the instant application.(e.g., enrollment data (all) is the "first" data in the instant application, but is called "second" in Musgrave et al.). Therefore, based on paragraph 8 of column 6, Figure 3, block 36 corresponds to both 1st and 2nd datum.)

C9. The method of claim 1 wherein receiving the first biometric data and the first personal key occurs during an enrollment process. (Column 6, lines 52-60.)

C10. The method of claim 1 wherein receiving the second biometric data and the second personal key occurs during an authentication process. (Column 3, lines 57-60.)

C11. The method of claim 1 wherein generating a signal includes issuing a confirmation signal when the second processed data matches the first processed data. (Column 3, lines 49-63.)

C12. The method of claim 11 wherein issuing a confirmation signal allows access to a facility. (Column 6, lines 5-17.)

C13. The method of claim 11 wherein issuing a confirmation signal allows access to a system. (Column 6, lines 5-17.)

C14. The method of claim 1 wherein generating a signal includes issuing a rejection signal when the second processed data does not match the first processed data. (Column 3, lines 49-63.)

C15. The method of claim 1 further comprising storing the first processed data in a database. (Column 3, lines 49-63.)

C16. The method of claim 15 wherein the database includes a plurality of first processed data. (Column 3, lines 49-63.)

C17. A method for processing data comprising: receiving biometric data and a personal key; processing the biometric data and the personal key through an irreversible cryptographic algorithm to form a processed data; and comparing the processed data to secondary data. (Rejected per claim 1 – fewer of the same limitations (e.g., authentication limitations without enrollment limitations).)

C18. The method of claim 17 further comprising generating a variant from the biometric data prior to processing the biometric data and the personal key through the irreversible cryptographic algorithm. (Rejected per claim 3.)

C19. The method of claim 17 further comprising processing the biometric data through a secondary irreversible cryptographic algorithm prior to processing the biometric data and the personal key through the irreversible cryptographic algorithm. (Rejected per claim 4.)

C20. The method of claim 17 further comprising adding salt to the biometric data and the personal key prior to processing the biometric data and the personal key through the irreversible cryptographic algorithm. (Rejected per claim 5.)

C21. The method of claim 17 wherein receiving the biometric data and the personal key occurs during an authentication process. (Rejected per claim 1.)

C22. The method of claim 17 further comprising associating a primary key with the biometric data and the personal key. (Rejected per claim 8.)

C23. The method of claim 17 wherein the secondary data includes a secondary biometric data and a secondary personal key. (Rejected per claim 1 and including the reasoning of claim 7.)

C24. The method of claim 23 wherein the secondary biometric data and the secondary personal key is received during an enrollment process. (Rejected per claim 23.)

C25. The method of claim 17 further comprising generating a signal corresponding to the comparison of the processed data to the secondary data. (Rejected per claim 1.)

C26. The method of claim 25 wherein generating a signal includes issuing a confirmation message when the processed data matches at least a portion of secondary data.
(Rejected per claim 11.)

C27. The method of claim 25 wherein generating a signal includes issuing a denial message when the processed data does not match at least a portion of secondary data.
(Rejected per claim 14.)

C28. The method of claim 25 wherein generating a signal allows entry into a facility when the processed data matches the secondary data. (Rejected per claim 12.)

C29. The method of claim 25 wherein generating a signal allows entry into a system when the processed data matches the secondary data. (Rejected per claim 13.)

C30. For a system for processing data and a computer readable medium containing program instructions for execution by a computer for performing the method for

Art Unit: 2139

processing data comprising: receiving a first biometric data and a first personal key; processing the first biometric data and the first personal key through an irreversible cryptographic algorithm to form a first processed data; receiving a second biometric data and a second personal key; processing the second biometric data and the second personal key through the irreversible cryptographic algorithm to form a second processed data; comparing the second processed data to the first processed data; and generating a signal pertaining to the comparison of the second processed data to the first processed data. (Rejected per claim 1 – the apparatus embodying the method of claim 1.)

C31. The computer readable medium for performing the method of claim 30 further comprising generating a first variant from the first biometric data prior to processing the first biometric data and the first personal key through the irreversible cryptographic algorithm. (Rejected per claim 2.)

C32. The computer readable medium for performing the method of claim 30 further comprising generating a second variant from the second biometric data prior to processing the second biometric data and the second personal key through the irreversible cryptographic algorithm. (Rejected per claim 3.)

C33. The computer readable medium for performing the method of claim 30 further comprising processing the first biometric data through a secondary irreversible cryptographic algorithm prior to processing the first biometric data and the second biometric data through the irreversible cryptographic algorithm. (Rejected per claim 4.)

C34. The computer readable medium for performing the method of claim 30 further comprising adding salt to the first biometric data and the first personal key prior to processing the first biometric data and the second biometric data through the irreversible cryptographic algorithm. (Rejected per claim 5.)

C35. The computer readable medium for performing the method of claim 30 further comprising processing the first personal key through a reversible cryptographic algorithm prior to processing the first biometric data and the first personal key through the irreversible cryptographic algorithm. (Rejected per claim 6 – 35 U.S.C. 112, supra.)

C36. The computer readable medium for performing the method of claim 30 further comprising associating a first primary key to the first processed data. (Rejected per claim 7.)

C37. The computer readable medium for performing the method of claim 30 further comprising associating a second primary key to the second processed data. (Rejected per claim 8.)

C38. The computer readable medium for performing the method of claim 30 wherein receiving the first biometric data and the first personal key occurs during an enrollment process. (Rejected per claim 9.)

C39. The computer readable medium for performing the method of claim 30 wherein receiving the second biometric data and the second personal key occurs during an authentication process. (Rejected per claim 10.)

C40. The computer readable medium for performing the method of claim 30 wherein generating a signal includes issuing a confirmation signal when the second processed

data matches the first processed data. (Rejected per claim 11.)

C41. The computer readable medium for performing the method of claim 40 wherein issuing a confirmation signal allows access to a facility. (Rejected per claim 12.)

C42. The computer readable medium for performing the method of claim 40 wherein issuing a confirmation signal allows access to a system. (Rejected per claim 13.)

C43. The computer readable medium for performing the method of claim 30 wherein generating a signal includes issuing a rejection signal when the second processed data does not match the first processed data. (Rejected per claim 14.)

C44. The computer readable medium for performing the method of claim 30 further comprising storing the first processed data in a database. (Rejected per claim 15.)

C45. The computer readable medium for performing the method of claim 44 wherein the database includes a plurality of first processed data. (Rejected per claim 16.)

C46. For a system for processing data and a computer readable medium containing program instructions for execution by a computer for performing the method for processing data comprising: receiving biometric data and a personal key; processing the biometric data and the personal key through an irreversible cryptographic algorithm to form a processed data; and comparing the processed data to secondary data.
(Rejected per claim 17 – the apparatus embodying the method of claim 17.)

C47. The computer readable medium for performing the method of claim 46 further comprising generating a variant from the biometric data prior to processing the biometric

Art Unit: 2139

data and the personal key through the irreversible cryptographic algorithm. (Rejected per claim 18.)

C48. The computer readable medium for performing the method of claim 46 further comprising processing the biometric data through a secondary irreversible cryptographic algorithm prior to processing the biometric data and the personal key through the irreversible cryptographic algorithm. (Rejected per claim 19.)

C49. The computer readable medium for performing the method of claim 46 further comprising adding salt to the biometric data and the personal key prior to processing the biometric data and the personal key through the irreversible cryptographic algorithm. (Rejected per claim 20.)

C50. The computer readable medium for performing the method of claim 46 wherein receiving the biometric data and the personal key occurs during an authentication process. (Rejected per claim 21.)

C51. The computer readable medium for performing the method of claim 46 further comprising associating a primary key with the biometric data and the personal key. (Rejected per claim 22.)

C52. The computer readable medium for performing the method of claim 46 wherein the secondary data includes a secondary biometric data and a secondary personal key. (Rejected per claim 23.)

C53. The computer readable medium for performing the method of claim 52 wherein the secondary biometric data and the secondary personal key is received during an enrollment process. (Rejected per claim 24.)

Art Unit: 2139

C54. The computer readable medium for performing the method of claim 46 further comprising generating a signal corresponding to the comparison of the processed data to the secondary data. (Rejected per claim 25.)

C55. The computer readable medium for performing the method of claim 54 wherein generating a signal includes issuing a confirmation message when the processed data matches at least a portion of secondary data. (Rejected per claim 26.)

C56. The computer readable medium for performing the method of claim 54 wherein generating a signal includes issuing a denial message when the processed data does not match at least a portion of secondary data. (Rejected per claim 27.)

C57. The computer readable medium for performing the method of claim 54 wherein generating a signal allows entry into a facility when the processed data matches the secondary data. (Rejected per claim 28.)

C58. The computer readable medium for performing the method of claim 54 wherein generating a signal allows entry into a system when the processed data matches the secondary data. (Rejected per claim 29.)

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following, provided by the applicant, are not considered patentably distinct from the instant application at this time: U.S. Patent Nos. 6,167,517, 6,523,041, 6,073,140, 2002/0184509, 6,317,834, and 6,697,947. Ratha et al., "Enhancing Security and Privacy in Biometric-based Authentication Systems," further

Art Unit: 2139

teaches many (if not all) variants of biometric data for later cancellation thereof, and inclusive encryption prior to transmission of identification data (including biometric).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kent L. Williams whose telephone number is 571-270-1376. The examiner can normally be reached on Mon-Fri 7:00-4:30 with Alternate Fridays Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz R. Sheikh can be reached on 571-272-3795. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Application/Control Number: 10/750,482
Art Unit: 2139

Page 15

K. Williams
4/04/2007

CHRISTOPHER REVAK
PRIMARY EXAMINER

A handwritten signature in black ink, appearing to be 'C. Revak', written below the printed name.